Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

(currently amended) A method of operation within a data processing system that
includes a plurality of processing nodes each having access to a set of shared resources,
the method comprising:

detecting failure of a failed node of within the plurality of processing nodes;

receiving a request to access a first resource of the set of shared resources; and

granting access, without delay, to the first resource the shared resources that were not

subject to access control by the failed node and, at the time the failed node was

detected, were not subject to exclusive access by the failed node; if the failed

node was not responsible for controlling access to the first resource and did not

have exclusive access to the first resource when the failure was detected

releasing locks to shared resources that were held by the failed node;

remastering, to non-failed nodes, shared resources that were mastered by the failed node;

granting access, to shared resources that the failed node controlled and, at the time the
failed node was detected, were subject to access by a non-failed node;
performing redo operations of the failed node; and
granting access, after performing redo operations, to all shared resources.

2. (currently amended) The method of claim 1 <u>further comprising:wherein granting access</u> to the first resource comprises:

determining whether the failed node was responsible for controlling access to the <u>a_first</u> resource; and

upon determining that if the failed node was not responsible for controlling access to the first resource,

determining whether, at the time the failure was detected, the failed node had exclusive access to the first resource.

3. (original) The method of claim 2 wherein determining whether the failed node was

responsible for controlling access to the first resource comprises inspecting a data structure that indicates, for each shared resource within the set of shared resources, which of the plurality of processing nodes is responsible for controlling access to the shared resource.

4. (original) The method of claim 3 wherein determining whether the failed node was responsible for controlling access to the first resource comprises identifying a data element within the data structure that includes a first component that identifies the first resource and a second component that identifies a processing node responsible for controlling access to the first resource.

5-9. (cancelled)

10. (currently amended) The method of claim 91, wherein remastering further comprisesing generating a data structure within the a first surviving non-failed node that indicates whether a processing node of the plurality of processing nodes, other than the failed node, had access to the first shared resources that were mastered by the failed node when the failedure node was detected.

11. (cancelled)

12. (currently amended) The method of claim 1, wherein releasing locks further comprisesing adding an identifier of the first shared resources to a validation data structure if the failed node was not responsible for controlling access to the first shared resources but had exclusive access to the first shared resources when the failure was detected.

13-20. (cancelled)

21. (currently amended) A computer-readable <u>storage</u> medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to:

detect <u>failure of</u> a failed node of <u>within</u> the plurality of processing nodes;

grant access, without delay, to the first resource the shared resources that were not subject to access control by the failed node and, at the time the failed node was detected, were not subject to exclusive access by the failed node; if the failed node was not responsible for controlling access to the first resource and did not have exclusive access to the first resource when the failure was detected

release locks to shared resources that were held by the failed node;
remaster, to non-failed nodes, shared resources that were mastered by the failed node;
grant access, to shared resources that the failed node controlled and, at the time the

failed node was detected, were subject to access by a non-failed node; perform redo operations of the failed node; and grant access, after performing redo operations, to all shared resources.

- 22. (cancelled)
- 23. (currently amended) A system comprising:

a data storage device having a set of shared resources stored therein; and a plurality of processing nodes each having a processing entity and a memory

coupled to the processing entity, the memory having program code stored therein which, when executed by said processing entity, causes said processing entity to: detect failure of a failed node of within the plurality of processing nodes; receiving a request to access a first resource of the set of shared resources; and grant access, without delay, to the first resource the shared resources that were not

subject to access control by the failed node and, at the time the failed node was detected, were not subject to exclusive access by the failed node; if the failed node was not responsible for controlling access to the first resource and did not

have exclusive access to the first resource when the failure was detected release locks to shared resources that were held by the failed node; remaster, to non-failed nodes, shared resources that were mastered by the failed node; grant access, to shared resources that the failed node controlled and, at the time the failed node was detected, were subject to access by a non-failed node;

perform redo operations of the failed node; and

grant access, after performing redo operations, to all shared resources.

- 24. (cancelled)
- 25. (new) The method of claim 1, wherein detecting a failed node further comprises determining whether (i) periodic transmissions by the failed node has ceased, (ii) the failed node is non-responsive to communications, or (iii) affirmative failure notification by the failed node.
- 26. (new) The method of claim 1, further comprising: before completion of the remastering, granting access to at least some of the shared resources that the failed node controlled and, at the time the failed node was detected, were subject to access by a non-failed node.
- 27. (new) The method of claim 1, wherein remastering further comprises granting access of the shared resources that the failed node controlled and, at the time the failed node was detected, were subject to access by a non-failed node, incrementally as redistribution of access control of shared resources by the failed node to non-failed nodes is performed.
- 28. (new) The method of claim 1, wherein redistribution of access control of shared resources by the failed node to non-failed nodes further comprises master reassignment and lock list recovery, that identifies locks held to re-mastered resources and to notify the new master of the lock.

- 29. (new) The method of claim 1, wherein releasing locks further comprises each processing node maintaining a lock list comprising lock data values that correspond to resource locks granted by the node but not released.
- 30. (new) The method of claim 29, wherein lock data values comprise a resource identifier to identify the resource to which the lock corresponds, a lock holder value that identifies the processing node to which the lock has been granted, and a lock mode value that indicates whether the lock is an exclusive lock or shared lock.
- 31. (new) A computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 2.
- 32. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 3.
- 33. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 4.
- 34. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 10.

- 35. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 12.
- 36. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 25.
- 37. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 26.
- 38. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 27.

- 39. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 28.
- 40. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 29.
- 41. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 30.